

Ametrida centurio, Gray.

One.

Sturnira lilium, Geoff.

One.

Desmodus rotundus, Geoff.

One.

XXVIII.—*The Rutelid Genus Adorodocia*.

By GILBERT J. ARROW.

To my great regret I have to announce that subsequent evidence, coming, unfortunately, just too late for the correction or recall of my paper in the 'Annals' of July last, has shown me that the conclusions there expressed are wrong in certain vital respects, in consequence of which the new genus and species there characterized become superfluous. Mr. Fred Bates kindly permitted me to make a careful examination of the specimens in his collection, which includes all the three forms referred to in my paper, together with an individual representing a fourth form which at once showed the necessity for reviewing my conclusions as to the sexes.

The British Museum contained altogether seven specimens, of which the type of *Adorodocia strigata*, Waterh., and two other specimens identical with it, I found by dissection to contain ova. Of the second form there were also three specimens, in which I found no ova, but the remarkable chitinous structure shown at *c* and *d* in the woodcut. This form agreed with the description of *A. vittaticollis*, Fairm., considered by both authors to be conspecific with *A. strigata*,

incisors, but conspicuously larger throughout. Last upper molar transversely oval. Second lower molar slightly larger in section than the first, the third one nearly half its size.

Dimensions of the type (measured on a specimen in spirit):—

Forearm 41 millim.

Head and body 57; nose-leaf 11×5.5 ; ear 15; third finger, metacarpal 38; first phalanx 14.5, second phalanx 24; lower leg 16; calcar 3.5; depth of interfemoral in centre 4.

Skull: greatest length 24; basal length 19; breadth of palate across molars 10.5; front of canine to back of m^2 8.4.

Hab. Pernambuco.

Type. Male. B.M. no. 81.3.16.4. Collected and presented by the late W. A. Forbes.

This species may be readily distinguished from *V. zarhinus* by its larger size and more prominent striping, and from *V. lineatus* by its minute incisors.

Waterh., while the greater development of the head and the fissure in the apical segment of the abdomen, in addition to the absence of ova, seemed certainly to point to it as the male of that form. The last specimen, of a much narrower shape, had a less developed clypeus, a different claw-structure, and no trace of the abdominal fissure, and upon dissection it alone proved to contain a genital organ of the normal male type. It was an isolated form not previously described, and for it I saw no alternative but to constitute a new genus.

The examination of additional specimens, however, showed this to be a case in which reasoning from analogy had proved misleading. A specimen was found which, upon comparison with the second form mentioned above, rendered it almost certain that they were the two sexes of one species. It contained a male organ similar to that of the supposed new species, and upon further investigation specimens were found containing ova together with the other sexual structure. This, therefore, it now appeared, was in reality the ovipositor. Upon further examination I found a minute structure of the same type present in the true *A. strigata*, of which the male remained still unknown. Eleven specimens of this form were all of the same sex, and as twelve of the form *ænigma*, Arrow, which I have now, by Mr. F. Bates's kindness, been able to examine, prove to be all males, the two occurring in the same collections, it can, I think, be safely assumed, notwithstanding all dissimilarities, that these also are the two sexes of a single species.

The other species, so long confused with *A. strigata*, shows less sexual disparity and, this question of sexual forms once disposed of, is an unmistakably distinct insect. It is normally larger, broader, and darker in colour, with a triangular head, from which the eyes do not project laterally. This species may, I think, with practical certainty be identified as *A. vittaticollis* of Fairmaire. Unfortunately the type of this and allied Madagascan species described by that author cannot be traced, as M. René Oberthür has kindly ascertained for me; but although M. Fairmaire's specimen appears to have been smaller than any I have seen, his reference to the much-thickened lateral margin of the prothorax and the inner pair of black spots near the hind margin appear to undoubtedly indicate this insect.

Herr Brenske has had the great kindness to send me his specimens, and so enabled me to determine the correct nomenclature of these species. As I supposed, *Adorodocia strigata*, Waterh., is the insect called by him *A. latissima*, while *A. maxima*, Brenske, was described from a female specimen

of the second species. It is pale in colour and shows no traces of thoracic marking; but this is evidently due to immaturity.

The history of these two unfortunate species has been a continuous series of erroneous suppositions, and curiously illustrates the dangers attending systematic work undertaken without an abundance of materials. Having been almost simultaneously described without investigation of their more important structural features, they were soon after wrongly announced by M. Fairmaire to be identical. They were then referred by Herr Brenske to his new genus under the wrong name of *latissima*, Blanch. (an insect redescribed as *Adoretus eunectoides*, Fairm.), and the redundant name of *maxima*, Brenske. They were next declared by Fairmaire, under some strange misapprehension, to have no relationship to that genus. Finally, by myself, still supposing the two names to be synonymous, the male of one of them has been generically separated.

In the hope of setting the matter finally at rest, I give the characters of each sex of both species in a tabular form, together with those of the genus, which was incompletely diagnosed from the female sex alone.

ADORODOCIA, Brenske.

Elytra furnished with a conspicuous membranous fringe. Prosternum strongly raised behind the front coxæ, forming an anvil-shaped process. Mesosternum acute, not produced. Labrum rostriform. Labium anteriorly emarginate.

♂. Anterior tibiæ long, third tooth obsolete. Larger claw of four anterior legs very slightly cleft beyond the middle. Last abdominal segment smooth, emarginate.

♀. Anterior tibiæ shorter, tridentate. Claws less unequal, larger claw of four anterior legs equally cleft at the tip. Last abdominal segment rugose, more or less cleft at the hind margin.

Elytra flavous; head, thorax, and scutellum in a greater or less degree darker. Clypeus semi-circular, eyes prominent. Pronotum marked with a black lateral line *strigatus*, Waterh.

♂. Elongate. Eyes more prominent. Pronotum less convex. (*ænigma*, Arrow.)

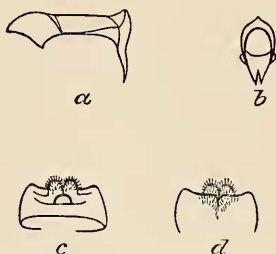
♀. Ovate. Eyes less prominent. Pronotum convex.

Castaneous, uniformly coloured above. Pronotum marked with a black lateral line and an inner spot, lateral margin strongly thickened. *vittaticollis*, Fairm.

♂. Rather elongate. Pronotum flat.

♀. Broader. Pronotum slightly convex. (*maxima*, Brenske.)

It is probable that other described Madagascan insects belong also to the genus.



Genitalia of *Adorodocia*.

a, ♂, lateral view; *b*, end view.
c, ♀, ventral view; *d*, dorsal view.

In order more effectually to correct my mistake as to the genitalia of these insects, I reproduce here the figures given last month, with the correct description of them.

XXIX.—*A Revision of the Butterflies of the Genus Precis, with Notes on the Seasonal Phases of the Species.* By ARTHUR G. BUTLER, Ph.D.

DURING a recent rearrangement of the Museum collection of the genus *Precis* I paid particular attention to the seasonal variation of the species, which, as Mr. Guy A. K. Marshall and others have pointed out, are often very remarkable. I found that by carefully studying the characters already noted by observant collectors there was in no case any difficulty in distinguishing the dry and wet phases, although the determination of the intermediate phase was necessarily somewhat arbitrary.

In the African forms of *Precis* the wet phase is, I believe, invariably smaller than the dry phase; but in the Oriental types this rule is usually reversed. This would tend to show that the dry phase in Africa had been better nourished and probably been a shorter time in the pupal condition than that of the Asiatic and Australasian forms.

The dry phase throughout the genus tends to have a more falcate form of front wing and a far more leaf-like character of under surface than the wet phase; in many species also the ocelli on the wings are reduced to mere points in the dry season, as in the *Satyrinæ*.

In several cases where it had been surmised that one